

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re application of
Pascazi

Examiner: Congvan Tran

Serial No: 09/902,466

Art unit: 2617

Filed: July 10, 2001

For: SYSTEM AND METHOD FOR CELL PHONE SIGNAL TRANSMISSION
VIA THE INTERNET

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APPEAL BRIEF

Mail Stop Appeal Brief-Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sirs:

In response to the Office Action dated May 1, 2009 and further to the Notice of Appeal mailed on September 23, 2009, please enter the following Appeal Brief to be submitted to the Patent Board of Appeals and Interferences.

Application No. 09/902,466
Appeal Brief Dated November 23, 2009 October 20, 2009
In Reply to Office Action dated May 1, 2009

Real Party in Interest (37 CFR 41.37(c)(1)(i))

The real party in interest is Mr. Michael Pascazi.

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Related Appeals and Interferences (37 CFR 41.37(c)(1)(ii))

The Appellant is not aware of any related prior or pending appeals or interferences related to this matter.

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Status of Claims (37 CFR 41.37(c)(1)(iii))

Claims 1-3 and 5-17 are the pending claims in the application and are the claims on appeal.

Claim 4 has been cancelled.

Claims 1-3 and 5-17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Heinonen et al. (U.S. Patent No. 6,816,719) in view of Klindworth (6,771,701).

A copy of the Claims on Appeal is attached hereto in the Appendix of Claims, listing the current status of pending claims 1-3 and 5-17 as well as the status of now cancelled claim 4.

Status of Amendments (37 CFR 41.37(c)(1)(iv))

This application was originally filed on July 10, 2001 with 16 claims. An Office Action was issued on May 3, 2005, rejecting claims 1-3, 8, 9, 12, and 14 under 35 U.S.C. Sec. 102 as being anticipated by Anderson et al. (U.S. Patent NO. 6,693,894). The Examiner also rejected claims 4, 5, 10, 11, and 13 under 35 U.S.C. Sec. 103(a) as being unpatentable over Anderson in view of Albal (U.S. Patent No. 6,668,046). The Examiner also rejected claims 6-7 and 15-16 under 35 U.S.C. Sec. 103(a) as being unpatentable over Anderson in view of Lee et al. (U.S. Patent No. 6,847,632).

On November 7, 2005 an Amendment was filed amending claim 1 and canceling claim 4, and presenting arguments over the Anderson reference.

On December 22, 2005, the Examiner replied by issuing a second Office Action again rejecting independent claims 1 and 14 over Anderson, further in view of the newly cited Song (U.S. Patent No. 6,694,019).

On June 26, 2006, Appellants filed an Amendment adding new independent claim 17 and arguing over the new rejection of Anderson and Song. On August 18, 2006, the Third Office Action was issued rejecting independent claims 1, 14 and 17 over a newly cited reference Anandakumar (U.S. Patent No. 6,574,213).

On February 23, 2007 an Amendment was submitted (ultimately entered by way of petition on June 14, 2007) presenting new arguments against the Anandakumar reference. The Examiner issued a fourth action on September 10, 2008 now rejecting independent claims 1, 14 and 17 over a third separate set of references, namely Heinonen et al (U.S. Patent No. 6,816,719) in view of Klindworth et al. (U.S. Patent No.

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6,771,701). A response, without amendment, was submitted on February 12, 2009
arguing over the two newly cited references. The Examiner issued a fifth Office Action
on May 1, 2009, against which the present appeal has been filed.

Summary of Claimed Subject Matter (37 CFR 41.37(c)(1)(v))

The following is a concise explanation of independent claims 1, 14 and 17 on appeal, indicating the corresponding portions of the specification that support these elements.

Claim 1 recites a telephone system for transmitting telephone signals between first and second mobile stations. A first internet protocol interface is configured to receive an incoming cell phone signal generated by the first mobile station, and to transmit the phone signal to the internet. See element 16 and paragraph [0016]

A second internet protocol interface is configured to receive the phone signal sent through the internet by the first internet protocol interface and to transmit the phone signal to the second mobile station, such that users of the first and second mobile stations can engage in a conversation where said phone signals are communicated over substantial distances through the internet. See element 18 and paragraphs [0005] and [0016]

The first and second internet protocol interfaces each maintain an echo canceller/equalizer module configured to correct distortions in the phone signal caused by the travel of the phone signal through free air, server delays and internet delays. See elements 54 and 54' in paragraphs [0021], [0027], [0034], [0038].

Independent claim 17, among the features cited above with respect to claim 1, further recites the features that the phone signal is transmitted to and from the first and second internet protocol interface by means of a first and second cell tower equipped with

an additional echo canceller/equalizer configured to correct distortions in the phone signal caused by the travel of the phone signal through the free air. See elements 48 and 48' and paragraphs [0018] and [0022].

Claim 14 recites a telephonic method of transmitting cell phone signals between first and second mobile stations on a telephone system having first and second internet protocol interfaces and first and second cell towers. The method includes generating a cell phone signal at a first mobile station and receiving the cell phone signal by the first cell tower and communicated to the first internet protocol interface. See element 16 and paragraph [0016]

Echo cancellation is conducted in the first internet protocol interface on the cell phone call to correct distortions in the phone signal caused by the travel of the phone signal through free air, server delays and internet delays. The cell phone signal is transmitted by the first internet protocol database into the internet. See steps 108-112 and paragraphs [0035] and [0036].

The cell phone signal is received by the second internet protocol interface, which conducts echo cancellation on the cell phone call to correct distortions in the phone signal caused by the travel of the phone signal through free air, server delays and internet delays, and delivered to the second cell tower. See steps 128-138 in paragraphs [0038]. The cell phone signal is received at the second mobile station, such that the first and second mobile station are in communication with each other. See paragraph [0005].

Grounds of Rejection to be Reviewed on Appeal (37 CFR 41.37(c)(1)(vi))

The only issue on appeal is the rejection of the claims, including independent claims 1, 14 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Heinonen et al. (U.S. Patent No. 6,816,719) in view of Klindworth et al. (U.S. Patent No. 6,771,701)

Appellant respectfully disagrees with this contention and intends to demonstrate to the Board that the cited references do not teach or suggest all of the elements of the present invention as claimed in independent claims 1, 14 and 17, nor is there any suggestion or motivation to combine the references with one another as suggested by the Examiner.

Argument (37 CFR 41.37(c)(1)(vii))

The features of independent claim 1 include a telephone system for transmitting telephone signals between first and second mobile stations. The system includes a first internet protocol interface configured to receive an incoming cell phone signal generated by the first mobile station, and to transmit this phone signal to the internet. A second internet protocol interface receives the phone signal sent through the internet by the first internet protocol interface and transmits it to the second mobile station, such that users of the first and second mobile stations can engage in a conversation where the phone signals are communicated over substantial distances through the internet. The first and second internet protocol interfaces each maintain an echo canceller/equalizer module configured to correct distortions in said phone signal caused by the travel of the phone signal through free air, server delays and internet delays.

Such an arrangement makes the transmission of cell phone communications more efficient by using the internet to carry the signal, rather than using a plurality of cell phone towers. See for example paragraphs [0003] – [0009] of the present application. This helps users carry on a live, voice conversation over substantial distances, through the internet, (see paragraphs [0009] and [0017] – [0021]) with corrected lag time delay and echoing being accounted for and cancelled (see paragraphs [0033]-[0034]).

Echo cancellation is a generally known concept, but in the context of the present application, a specific placement of echo cancellation at the point of conversion down to the internet (after being initiated and sent by tower) and then again as the signals come out of the internet (to be again transmitted up to a tower for delivery to the second phone

device) allows for better servicing of calls that travel through both traditional (cell tower) pathways in combination with non-traditional (internet) pathways.

To form the rejection, the Examiner states that Heinonen teaches all of the elements of claim 1 except that the first and second internet interfaces have echo cancellers. The Examiner completes the rejection by stating that Klindworth teaches the use of echo cancellers for signals problems over free air, server delays and internet delays and that it would be obvious to combine those elements with the system of Heinonen to arrive at the present claims.

The Heinonen reference pertains to a method and system for making profile information concerning users of a wireless network available to other users. [col. 2, lines 46-64] The profile information includes information on whether a user's device on the network is operational or not. The profile information may also include stored user data [col. 2, lines 64 – col. 3, lines 1-5]. Unlike the present invention, Heinonen's method and system transmits data that is not time sensitive to the extent that fractions of a second would affect the functionality of the method or system, because *Heinonen's system does not transmit live voice input*.

As noted above, in order to complete the rejection of the claims, the Examiner cites to the Klindworth reference, which describes a method for using a configurable adaptive filter for echo cancellation, and a method for detecting voice or no-voice signals.

In the September 10, 2008 Office Action, on page 3 of the Office Action, the Examiner states that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the Klindworth's echo canceller in Heinonen's invention in order to remove acoustical and electrical echoes that occur due to reflections of in signal to improve the quality of telecommunications system."

Appellant notes that:

“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, *there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness*”. KSR, 127 S.Ct. at 1741. (emphasis added) cite from In re Kahn

Although KSR has acknowledged that there is no a rigid test that requires the Examiner to indicate the teaching, motivation or suggestion to combine, within the references themselves, for forming the obviousness rejection, it has not removed the requirement for articulating *why* one of ordinary skill in the art would combine the references to reach the specific combination as claimed.

In the present application, it appears that the Examiner is using the present claim as a blueprint and working backwards to find various components from disparate references to form the rejection.

Knowledge of a problem and motivation to solve it are entirely different from motivation to combine *particular references to teach the particular claimed arrangement*. An obviousness rejection should not be sustained using hindsight reconstruction of references to reach the claimed invention without explanation as to how or why the *particular references would be considered to be combined to reach the elements of the claims*. *Innogenetics, N.V. v. Abbott Laboratories*, 512 F.3d 1363 at footnote 3.

In the present application, the claims recite a specific communication arrangement that has include several component elements each of which are selected to generate a novel method of cellular communications. Even though each of the certain components

themselves may be independently considered to be known in the art, when evaluating the claim for obviousness, the claim must be taken in its totality, including the totality of the combined elements.

It is the Examiner's position that one could use the Klindworth's echo canceller in Heinonen's invention to remove *acoustical and electrical echoes* that occur due to reflections of in signal. However, this alone is not sufficient to sustain an obviousness rejection.

Heinonen's method and system merely transmits profile information where there is no negative effect to a short time delay. *There are no acoustical and electrical echoes in such communications.* Therefore, it would not make sense to add the echo-cancelling method of Klindsworth or any such echo-cancelling architecture/method, to Heinonen's profile information transmitter.

For example, the Klindworth reference details an arrangement concerned with curing time delays in substantially the range of 20 to 120 milliseconds (see col.4, line 39 – col.5, line 58). Indeed, in col. 5, lines 43-47, Klindsworth describes a 120 millisecond time delay as “a long period of time for t_{max},” where t_{max} represents, “the amount of time used in determining the maximum amplitude of the signal that is later used as an upper limit in a histogram of the amplitude of the signals...” (col. 5, lines 33-37). A delay of 120 milliseconds is virtually inconsequential for Heinonen's system and method because the Heinonen reference merely transmits saved profile information.

Moreover, “. . . [W]hen the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.” KSR Intern. Co. v. Teleflex Inc., 550 U.S. 398, 416 (2007)(citing United

States v. Adams, 383 U.S. 39, (1966)). In the present instance, given the time delays mentioned in Klindworth (120 milliseconds), combining the elements of Klindworth and Heinonen would in fact assure that a system mimicking the present arrangement as claimed would fail, because real time voice communications cannot tolerate such long time delays in the communications pathway. Therefore, the combination of the elements cited by the Examiner is clearly taught away from. A user of ordinary skill in the art would certainly not consider combining elements that would assure the failure of his/her endeavor. This factor alone supports the proposition that the current application is nonobvious.

Thus, there is no teaching, suggestion, or motivation in the Heinonen and Klindworth references that would cause a user of ordinary skill in the art to combine the references as suggested by the Examiner. On the contrary, as it stands, the Examiner appears to be using the language of the independent claims as a blueprint and working backwards to form the rejection without articulating a reasoning with a rational underpinning for one of ordinary skill in the art to make such a combination.

To form an obviousness rejection of the independent claims, the cited references should not only mention all of the elements of the claims, but instead taking the claim in its totality, must suggest to one of ordinary skill art to combine each of the claimed components to form the complete arrangement/method as claimed

Regarding the Examiner's reply to the prior remarks in May 1, 2009 the Examiner states that "...a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art..."

Appellant notes that claims 1 and 17 are system claims. Appellant is submitting

that the prior art does not teach or suggest all of the combined elements of the these claims. To the extent that there are functional recitations of the claimed structural elements they are not relied on to overcome the references. Claim 14 is a method claim and is embodied by the steps recited. Appellant is asserting that the references do not teach the combined steps as claimed.

For at least this reason, Appellant requests that rejection of independent claims 1, 14 and 17 be withdrawn. For at least these same reasons, Appellant requests that the rejection of dependent claims 2-3, 5-13 and 15-16 be withdrawn .

Claims Appendix (37 CFR 41.37(c)(1)(viii))

1. (currently amended) A telephone system for transmitting telephone signals between first and second mobile stations, said system comprising:

a first internet protocol interface configured to receive an incoming cell phone signal generated by the first mobile station, and to transmit said phone signal to the internet; and

a second internet protocol interface configured to receive said phone signal sent through the internet by said first internet protocol interface and to transmit said phone signal to the second mobile station, such that users of the first and second mobile stations can engage in a conversation where said phone signals are communicated over substantial distances through the internet, wherein ~~one of~~ said first and second internet protocol interfaces each maintain[[s]] an echo canceller/equalizer module configured to correct distortions in said phone signal caused by the travel of said phone signal through free air, server delays and internet delays.

2. (original) A telephone system as claimed in claim 1, wherein said first internet protocol interface is further comprised of a first address reader module configured to read the phone number of the destination second mobile station entered by the user the first mobile station.

3. (original) A telephone system as claimed in claim 2, wherein said first internet protocol interface is further comprised of a first software controller module

configured to process the address information for the second mobile station provided as provided by said first address reader module.

4. (cancelled)

5. (previously presented) A telephone system as claimed in claim 1, wherein said first internet protocol interface is further comprised of a first analog/digital converter configured to convert a voice portion of said phone signal into digital format.

6. (original) A telephone system as claimed in claim 1, wherein said first internet protocol interface is further comprised of a internet protocol converter module configured to embed said phone signal into a packetized digital data stream for transmission through the internet.

7. (original) A telephone system as claimed in claim 6, wherein said second internet protocol interface is further comprised of a internet protocol de-converter module configured to remove said phone signal from said packetized digital data stream.

8. (original) A telephone system as claimed in claim 1, wherein said second internet protocol interface is further comprised of a second software controller module configured to process address information of the second mobile station provided by the user of the first mobile station.

9. (original) A telephone system as claimed in claim 8, wherein said second internet protocol interface is further comprised of a second address reader module configured to read said address information provided by said second software controller so as to direct said cell phone signal through the public switched telephone network to the second mobile station.

10. (original) A telephone system as claimed in claim 1, wherein said second internet protocol interface is further comprised of a second digital/analog converter, configured to convert the voice portion of said phone signal in to analog format.

11. (original) A telephone system as claimed in claim 10, wherein said second internet protocol interface is further comprised of a second echo canceller/equalizer module configured to correct distortions in said phone signal caused by the travel of said phone signal through the internet.

12. (original) A telephone system as claimed in claim 1, wherein the first and second mobile stations are cell phones.

13. (original) A telephone system as claimed in claim 1, wherein said phone signal can be transmitted from said first internet protocol interface to said second internet protocol interface via a private packet switched network.

14. (previously presented) A telephonic method of transmitting cell phone signals between first and second mobile stations on a telephone system, said system having first and second internet protocol interfaces and first and second cell towers, said method comprising the steps of;

generating a cell phone signal at a first mobile station;

receiving said cell phone signal by the first cell tower and communicated to the first internet protocol interface;

conducting echo cancellation in said first internet protocol interface on said cell phone call to correct distortions in said phone signal caused by the travel of said phone signal through free air, server delays and internet delays;

transmitting said cell phone signal by the first internet protocol database into the internet;

receiving said cell phone signal by the second internet protocol interface, conducting echo cancellation in said first internet protocol interface on said cell phone call to correct distortions in said phone signal caused by the travel of said phone signal through free air, server delays and internet delays, and delivered to the second cell tower;

and

receiving said cell phone signal at the second mobile, such that the first and second mobile station are in communication with each other.

15. (original) The telephone method as claimed in 14, further comprising the step of embedding said phone signal into a packetized digital data stream before the first internet protocol interface transmits said phone signal into the internet.

16. (original) The telephone method as claimed in 15, further comprising the step of recovering said embedded phone signal from said packetized digital data stream after said phone signal is received by the second internet protocol interface.

17. (previously presented) A telephone system for transmitting telephone signals between first and second mobile stations, said system comprising:

a first internet protocol interface configured to receive an incoming cell phone signal generated by the first mobile station, and to transmit said phone signal to the internet; and

a second internet protocol interface configured to receive said phone signal sent through the internet by said first internet protocol interface and to transmit said phone signal to the second mobile station, such that users of the first and second mobile stations can engage in a conversation where said phone signals are communicated over substantial distances through the internet,

wherein ~~one of~~ said first and second internet protocol interfaces each maintain[[s]] an echo canceller/equalizer module configured to correct distortions in said phone signal caused by server and internet delays, and

said phone signal is transmitted to and from said first and second internet protocol interface by means of a first and second cell tower equipped with an additional echo canceller/equalizer configured to correct distortions in said phone signal caused by the travel of said phone signal through the free air.

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Evidence Appendix (37 CFR 41.37(c)(1)(ix))

There is no additional material for this section.

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Related Proceedings Appendix (37 CFR 41.37(c)(1)(x))

There is no additional material for this section

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In view of the forgoing, Appellant respectfully submits that the present invention as claimed is now in condition for allowance, and requests that the Patent Board of Appeals reverse the rejections of the Examiner and remands it to him for further prosecution as requested by Appellant.

Respectfully submitted

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Dated: November 23, 2009

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